

**IN THE CLAIMS**

1. (currently amended) A sensor for measuring a physical parameter of a fluid, in particular for measuring total air temperature, the sensor comprising:

- a fluid intake ~~(1)~~ fitted to a streamlined body ~~(2)~~;
- a duct provided in said streamlined body ~~(2)~~ to enable fluid flow, said duct communicating with said fluid intake; and
- a sensing element disposed inside said duct;

wherein the sensor comprises a fixing flange having a bearing surface defining a fixing plane for the sensor, and wherein the inlet section of being characterized in that said fluid intake presents an inlet section which extends in such a manner so as to define a surface that slopes relative with respect to a surface the perpendicular to the main flow direction of the fluid at said intake fixing plane, said sloping surface defining a sliding surface for any pieces of ice that may come to bear there against.

2. (currently amended) TheA sensor according to claim 1, ~~characterized in that~~wherein the inlet section presents an inclination relative with respect to a section orthogonal to the main flow direction of the fluid.

3. (currently amended) TheA sensor according to claim 1, ~~characterized in that~~wherein the inlet section defines a sliding surface that is concave or convex.

4. (currently amended) A~~The~~ sensor according to claim 1, ~~for measuring a physical parameter of a fluid, in particular for measuring total air temperature, the sensor comprising:~~

- ~~—a fluid intake (1) fitted to a streamlined body (2);~~
- ~~—a duct provided in said streamlined body (2) to enable fluid flow, said duct communicating with said fluid intake; and~~
- ~~—a sensing element disposed inside said duct, wherein the fluid intake (1) presenting presents an inside section defined by at least one plane surface (1b) which communicates with a~~

chamber (7)—that opens to the outside and that constitutes a boundary layer suction chamber;

~~the sensor being characterized in that said plane surface (1b) presents wherein said plain surface includes~~ for this purpose a plurality of suction slots (12)—extending transversely relative to the general flow direction of the stream in the fluid intake.

5. (currently amended) TheA sensor according to claim 4, ~~characterized in that~~wherein the slots extend in said plane wall perpendicularly to the general flow direction of the fluid.

6. (currently amended) TheA sensor according to claim 4, ~~characterized in that~~wherein the slots extend in a chevron shape in said plane wall.

7. (currently amended) TheA sensor according to ~~any one of claims 4 to 6, characterized in that~~wherein the slots extend through the thickness of the wall so as to slope downstream.

8. (currently amended) TheA sensor according to claim 1, for measuring a physical parameter of a fluid, in particular for measuring total air temperature, the sensor comprising:

~~— a fluid intake (1) fitted to a streamlined body (2);  
— a duct provided in said streamlined body (2) to enable fluid flow, said duct communicating with said fluid intake; and  
— a sensing element disposed inside said duct;~~

wherein the sensor being characterized in that the sensing element comprises a ceramic tube having a measurement resistive wire wound thereon.

9. (currently amended) TheA sensor according to claim 8, ~~characterized in that it includes said sensor further comprising~~ a support mandrel carrying the sensing element and made of a thermally insulating ceramic.

10. (currently amended) TheA sensor according to ~~any preceeding claim 8, wherein characterized in that it includes a fixing flange (11) presenting a bearing surface that defines a fixing plane for the sensor, and in that the streamlined body (2) is inclined relative to the fixing plane and presents a longitudinal axis which extends other than perpendicularly relative to said plane.~~

11. (currently amended) TheA sensor according to ~~any preceeding claim 8, characterized in that~~wherein the angle between the longitudinal axis ~~(A)~~ of the streamlined body ~~(2)~~ and the direction perpendicular to the fluid flow and/or to the fixing plane lies substantially in the range 5° to 15°.

12. (currently amended) TheA sensor according to ~~any preceeding claim 8, characterized in that~~wherein the fluid intake ~~(1)~~ presents an inside section defined by two substantially plane surfaces ~~(1b, 1c)~~ extending facing each other, and interconnected by surfaces of rounded shape.

13. (new) The sensor according to claim 8, wherein the angle between the longitudinal axis of the streamlined body and the direction perpendicular to the fixing plane lies substantially in the range of 5° to 15°.

14. (new) The sensor according to claim 1, wherein the streamlined body is inclined relative to the fixing plane and presents a longitudinal axis which extends other than perpendicularly relative to said plane.

15. (new) The sensor according to claim 14, wherein the angle between the longitudinal axis of the streamlined body and the direction perpendicular to the fluid flow lies substantially in the range of 5° to 15°.

16. (new) The sensor according to claim 1, wherein the fluid intake presents an inside section defined by two substantially plane surfaces extending facing each other, and interconnected by surfaces of rounded shape.

17. (new) The sensor according to claim 1, wherein the angle between the longitudinal axis of the streamlined body and the direction perpendicular to fixing plane lies substantially in the range of  $5^{\circ}$  to  $15^{\circ}$ .

18. (new) The sensor according to claim 4, wherein the streamlined body is inclined relative to the fixing plane and presents a longitudinal axis which extends other than perpendicularly relative to said plane.

19. (new) The sensor according to claim 4, wherein the angle between the longitudinal axis of the streamlined body and the direction perpendicular to the fluid flow lies substantially in the range of  $5^{\circ}$  to  $15^{\circ}$ .

20. (new) The sensor according to claim 4, wherein the fluid intake presents an inside section defined by two substantially plane surfaces extending facing each other, and interconnected by surfaces of rounded shape.

21. (new) The sensor according to claim 4, wherein the angle between the longitudinal axis of the streamlined body and the direction perpendicular to the fixing plane lies substantially in the range of  $5^{\circ}$  to  $15^{\circ}$ .

Application No.: 10/517,796

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**IN THE DRAWINGS**

Attachment: Replacement Sheet 1